

8. Functions and operation

8-1 On screen Menu (OSD)

MAIN MENU					
LENS	MANUAL	DC			
EXPOSURE	AGC	SHUTTER	SENS -UP	INITIAL	PREVIOUS
DAY/NIGHT	AUTO I	AUTO 2	DAY	NIGHT	
WDR/BLC/ECLPS	OFF	WDR	BLC	ECLPS	
WHITEBAL	ATW	COL-ROLL	PUSH	MANUAL	
2D-DNR	DISABLED	LOW	MIDDLE	HIGH	
3D-DNR	ON	OFF			
EFFECTS	DZOOM MODE	IMAGE FRE EZE	D-EFFECT	COLOR	CONTRAST
	SHARPNESS	CR-GAIN	CB-GAIN	INITIAL	PERVIOUS
SPECIAL	CAM NAME	MOTION DET	PRIVACY MASK	LANGUAGE	STABILIZER
	L/L SYNC	MONITOR TYPE	FACTORY RESET	COMM SET	PREVIOUS
EXIT					

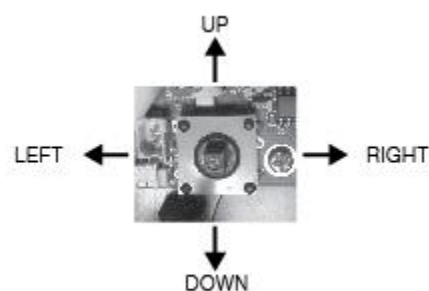
8-2. Setting up the menu

1. Press the SETUP button to access the SETUP mode.

The SETUP menu is displayed on the monitor.

2. Please select any function you wish to activate by using

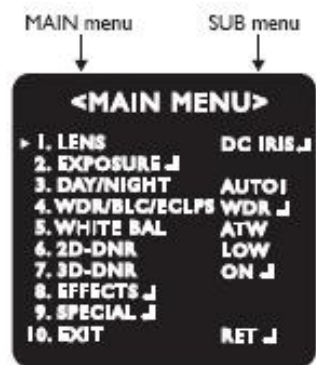
The UP/DOWN buttons. The arrow can be moved up or down by using the UP/DOWN buttons. Position the arrow to point to the function you wish to operate.



3. Change the status of the selected feature using the LEFT/RIGHT buttons. When the LEFT or RIGHT button is pressed, available values and modes are displayed in order. Please keep pressing the button until you get to the mode you wish to operate.



- When completed, move the arrow indicator to 'EXIT' and press the SETUP button to finish the setting.



Note

- If the arrow (↗) appears at the mode you wish to operate, it means that there is a sub-menu which can be selected by pressing the setup button.
- If the arrow (↗) does not appear at the mode item, it means that there is no mode available to be selected.

8-3. LENS (Selection)

This function is used to select the lens and to adjust the SETUP suitable to the type of lens.

◆ When DC lens is used.

- Please select the lens mode to DC position first by OSD.
- Press the button.
- The LENS on the menu will automatically display <DC> in the sub-menu. If this sub-menu shows <MANUAL>, please select the sub-menu and it will be converted to <DC>.
- DC Level volume controls Brightness level of the screen when <DC> mode is adjustable.



- Select the SHUTTER menu and move the cursor to sub-menu <DC>.
- Press the Button and then the BRIGHTNESS CONTROL menu turns on.
- Adjust the level by using the LEFT/RIGHT selections

◆ When MANUAL lens is used.

- When Manual lens is used, the menu is automatically converted to <MANUAL> mode.
- Press the Button and select <MANUAL> on the LENS mode.



8-4. EXPOSURE (Condition and Shutter speed control)

(1) AGC (AUTO GAIN CONTROL)

The higher the gain level, the brighter the screen but the higher the noise.

- OFF : Deactivates the AGC function.
- LOW : Allows automatic gain control from 0 to 20dB.
- MIDDLE : Allows automatic gain control from 0 to 30dB.
- HIGH : Allows automatic gain control from 0 to 42dB.



(2) SHUTTER

1. Move the arrow to point to 'SHUTTER' by using the UP/DOWN selections.
2. Please select the shutter mode by using the LEFT or RIGHT selections.
 - A. AUTO : The shutter speed is controlled automatically.
 - B. FLK : Please select FLK mode when flickering occurs on the screen, due to an imbalance between illumination and frequency.
 - C. FIXED : The shutter speed is controlled manually.
 - D. SEN-UP : This is an electronically activated function to improve the sensitivity for viewing low light condition in addition to the original sensitivity from CCD sensor itself. Shutter level is adjustable from 2 to 512 times.

- When SEN-UP level is higher, the picture becomes brighter and ghost effect is occurred.
- During SEN-UP function in operation, Noise, Spots and White blemish are increased at the same rate of SENS-UP level increasing. But this is not a malfunction.

3. Please select FIXED mode if you wish to adjust the shutter manually.
 - You can select speed from '1/60' to '1/90,000 sec. (NTSC), '1/50' to '1/90,000 sec. (PAL).
 - Please use this function only when the light level of the surveillance area is fixed all the time.

(3) SENS-UP

SENS-UP helps maintain a bright, clear screen image by automatically detecting changes of the level of light in low illumination.



1. Please position the arrow to point to 'SENS-UP' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the LEFT and RIGHT buttons.
 AUTO : Low light level auto mode.(x8)
 OFF : This function does not operate.

☞ Note

- When the SHUTTER is in the MANUAL mode, SENS-UP does not operate.
- When the AGC is turned off, SENS-UP does not operate.

(4) INITIAL SET

Initialize all setting of EXPOSURE menu.

(5) PREVIOUS

Select this to save the change in the EXPOSURE menu and return to the MAIN MENU.

8-5. DAY NIGHT

You can display pictures in Color or B/W.

1. Please position the arrow to point to 'DAY/NIGHT' on the SETUP menu by using the UP and DOWN selections.
2. Please select the mode you wish to operate by using the LEFT and RIGHT selections.

- DAY : The picture is always displayed in color.
- NIGHT : The picture is always displayed in black and white.
- AUTO1 : The mode is switched to 'DAY' in a normal environment but to 'NIGHT' mode when ambient illumination is low.
 To set up the switching time or speed for AUTO mode, for the EXT Signal(CDS).



- AUTO2 : The mode is switched to 'DAY' in a normal environment, but switches to 'NIGHT' mode when ambient illumination is low. To set up the switching time or speed for AUTO mode, press the Tact SW.
 - D/N LEVEL : LOW/MIDDLE/HIGH
 - FILTER DLY : You can select the duration time about changing the Day/Night mode.
 (1 SEC, 3 SEC, 5 SEC, 10 SEC, 15 SEC, 30 SEC, 60 SEC)
 - NIGHT BURST : Burst ON/OFF selectable.(ON/OFF)
 - INITIAL : Initialize all setting of AUTO2 menu.

8-6. WDR/BLC/ECLPS

This function is useful when there is a strong backlight behind the object.

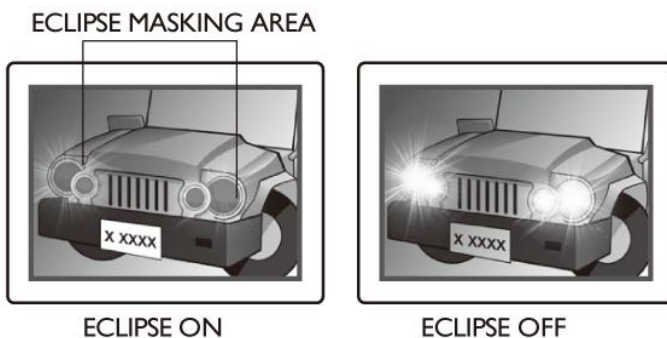
1. Please position the arrow to point to 'WDR/BLC/ECLPS' on the SETUP menu by using the UP and DOWN buttons.
2. Please select the mode you wish to operate by pressing the LEFT and RIGHT buttons.



- OFF : Deactivates the WDR function.
- WDR : When there are both bright and dark areas at the same time, this mode makes both areas distinctive. (LOW/MIDDEL/HIGH)
- BLC : Enables a user to directly select a desired area from a picture, and to view the area more clearly.(LOW/MIDDEL/HIGH)



- ECLIPSE : If there is a highlight installed in a limited environment such as an apartment parking garage or gas station entrance, removing the high light makes it possible to view car license plates efficiently.



8-7. White Balance (WHITE BAL)

This is useful when the cameras are installed in different artificial lighting conditions where a standard White Balance condition is not suitable for all.

1. Please position the arrow to point to 'WHITE BAL' on the SETUP menu by using the UP and DOWN selections.
2. Please select the mode you wish to operate by using the LEFT or RIGHT selection.
3. Please select one of the 4 modes below.

- **ATW** (Auto Tracking White Balance)

This mode can be used within the color temperature Range of 2,000°K~20,000°K.

- **COL-ROLL**

Anti color rolling mode.

- **MANUAL**

This manual adjustment mode makes finer adjustment possible. Please select ATW or AWC first, change to manual adjustment mode and press the Tact SW.

Please set the appropriate color temperature, and then increase or decrease the red and blue color values while monitoring the color changes on the object.

- **PUSH**

It is suitable when the object's background is in high color temperature.

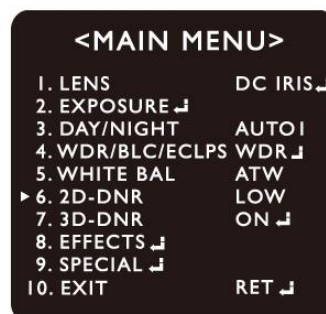
(Ex. Clear sky, Sunset)



8-8. 2D-DNR (2D Noise Reduction)

1. Please position the arrow to point to '2DNR' on the SETUP menu by using the UP and DOWN selections.
2. Please select the mode you wish to operate by using the LEFT and RIGHT button. 3 kinds of 2D-DNR level can be selected.

- LOW
- MIDDLE
- HIGH
- DISABLED: Deactivates 2DNR. Noise is not reduced.
- OFF : Activates 2DNR. Noise is not reduced.



8-9. 3D-DNR (3D Noise Reduction)

The background noise in the low light level decreases automatically as the level of gain changes.

1. Please position the arrow to point to '3DNR' on the SETUP menu by using the UP and DOWN selections.

2. Please select the mode you wish to operate by using the LEFT and RIGHT button.

OFF: Deactivates 3DNR. Noise is not reduced.

ON : Activates 3DNR so that noise is reduced.

3. Set the 3DNR mode to 'ON' and press the Tact SW.

- DNR LEVEL

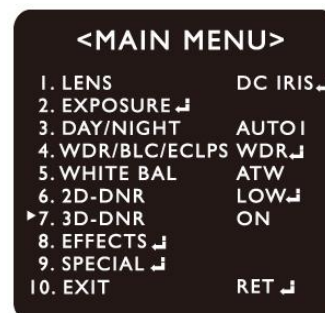
Then you can adjust the noise reduction level.

- DESTINATION

Then you can adjust the 3DNR gain.

- GLOBAL MOVEMENT

Control ghost phenomenon



8-10. EFFECTS

1. Please position the arrow to point to 'EFFECTS' on the SETUP menu by using the UP and DOWN selections.

2. Please select the mode you wish to operate by using the Tact SW.

- **D-ZOOM** : You can use a digital zoom.

· ZOOM : x1 ~ x8.30

· DZOOM PAN : -100 ~ 100

· DZOOM TILT : -100 ~ 100

- **IMAGE FREEZE** : You can view still or moving pictures.

- **D-EFFECT**

· V-FLIP : You can flip the picture vertically on the screen.

· MIRROR : You can flip the picture horizontally on the screen.

· ROTATE : You can flip the picture rotate on the screen.



- **COLOR** : ON/OFF
 - CONTRAST : 0 ~ 100
 - SHARPNESS : 0 ~ 100
 - CR GAIN : -100 ~ 100
 - CB GAIN : -100 ~ 100
- **INITIAL SET** : Initialize all setting of EFFECTS menu.
- **PREVIOUS** : Select this to save the EFFECTS menu setting and return to the MAIN menu.

8-11. SPECIAL

1. Please position the arrow to point to 'SPECIAL' on the SETUP menu by using the UP and DOWN selections.
2. Please select the mode you wish to operate by using the LEFT or RIGHT selection.



(1) CAM NAME

If you enter a title, the title will appear on the monitor.

1. Please position the arrow to point to 'CAM NAME' by using the UP or DOWN selection.
2. Please select 'ON' by using the LEFT and RIGHT selection.
Please press the button to complete 'ON'.



NOTE

- If 'OFF' is selected, the CAM NAME does not appear on the monitor even if it has been input.

3. Up to 15 letters are offered for the CAM TITLE.

- ① Please move the cursor to the letter to choose by using the UP and DOWN selections.
- ② Set an ID from A~Z /a~z /0~9 by using the UP, DOWN, LEFT and RIGHT Selections.
- ③ Lock in the letters by using the button.
 - When the letter is locked in, the cursor moves to the next space.
- ④ Please repeat the above to input CAM NAME.

NOTE

· If a wrong name has been input...

- If you press the button after moving the cursor to CLR, all the letters will be erased.

- If you want to correct a letter, please move the cursor to the arrow at the bottom left of the screen and press the button.

- Please position the cursor on the letter you wish to correct, and then move the cursor onto the letter you wish to choose and press the button.



4. When a name has been chosen, please select a position for the name to display.



- ① Please move the cursor onto 'POS' and then press the button.
- ② The name will appear at the top left hand corner.
- ③ Please find the position you wish to display the name by using the 4 directional selections, and then press the Button.

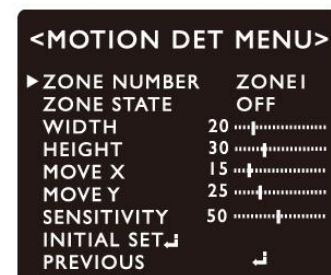
5. Please select 'END' and then press the Button to complete CAM NAME input.

(2) MOTION

1. When the SPECIAL menu screen is displayed, press the Tact SW so that the arrow indicates 'MOTION'.

2. Set up the mode using the Function Setup button.

- ZONE NUMBER : You can select up to 8 MD areas.
- ZONE STATE : Determines whether to use the MD area selected in ZONE NUMBER.
- WIDTH : Determines the coordinate of the horizontal size.
- HEIGHT : Determines the coordinate of the vertical size.
- MOVE X : Determines the coordinate of the vertical axis.
- MOVE Y : Determines the coordinate of the horizontal axis.
- SENSITIVITY : Determines the coordinate of the sensitivity.
- INITIAL SET : Initialize all setting of MOTION DET menu.
- PREVIOUS : Select this to save the MOTION menu setting and



return to the SPECIAL menu.

(3) PRIVACY

1. When the SPECIAL menu screen is displayed, press the Tact SW so that the arrow indicates 'PRIVACY'.
2. Set up the mode using the Function Setup button.



- MASK NUMBER : You can select up to 8 PRIVACY areas.
- MASK STATE : Determines whether to use the selected in AREA SELECT.
- MASK COLOR : Determines area color. You can select GRAY, WHITE, RED, GREEN, BLUE, YELLOW, BLACK.
- WIDTH : Determines the coordinate of the horizontal size.
- HEIGHT : Determines the coordinate of the vertical size.
- MOVE X : Determines the coordinate of the vertical axis.
- MOVE Y : Determines the coordinate of the horizontal axis.
- INITIAL SET : Initialize all setting of PRIVACY menu.
- PREVIOUS : Select this to save the PRIVACY menu setting and return to the SPECIAL menu.

(4) LANGUAGE

You can select the menu language according to your requirements.

- English, Korean, Russian, Spanish, French



(5) STABILIZER

This function mitigates any picture movement due to external factors such as wind.



NOTE

- The chance of resolution decrease is existed because STABILIZER function uses the digital zoom.
- STABILIZER doesn't operate when background illumination is too low.
- STABILIZER doesn't operate when object pattern is monotonic like sky or white wall.

(6) L/L SYNC

Fixed to the 'INT' mode.



(7) MONITOR TYPE

- CRT : GAMMA 0.45
- LCD : GAMMA 1.0



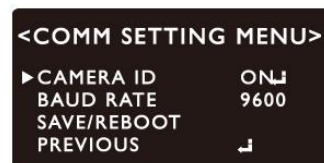
(8) FACTORY RESET

Resets the camera setting to the factory defaults.

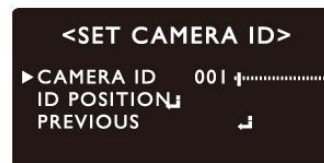
(9) COMM SET

This function sets up the camera communication status when controlling the camera through an external control device.

1. When the SPECIAL menu screen is displayed, press the Tact SW so that the arrow indicates 'COMM SET'



2. Set up the mode using the Tact SW.



- CAMERA ID

- CAMERA ID : Determines the camera's identification number (between 0 and 255).
- ID POSITION : Displays camera title on top left & right the screen.
- BAUD RATE : You can select 4800/9600/19200/38400/57600 bps .
- SAVE/REBOOT: Select this to save the COMM SET menu setting and return to the main screen.
- PREVIOUS: Return to COMM SET menu.

8-12. EXIT

Save all setting menus by pressing the Tact SW and then exit by pressing EXIT menu.